

Features

- Dual-Band
- Dual Circular Polarization
- Integrated Design of Antenna and Duplexers
- High Isolation
- High Integration Density

Applications

Test & Measurement

Radar

Military and Space

Satellite

Microwave Radio Systems

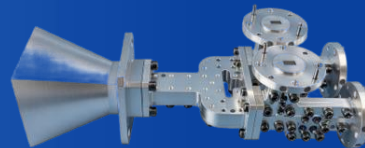
Communication Systems

Description

The QV-band Horn Antenna consists of one horn antenna and two duplexers. The transmit frequency bands are 41.5~42.5 GHz, while the receive frequency band is 50.4~51.4 GHz. It realizes the transmission and reception of right-hand circularly polarized (RHCP) signals and left-hand circularly polarized (LHCP) signals. The isolation between transmit and receive channels is greater than 70 dB. The antenna RF interface consists of two BJ400 and two BJ500 standard waveguide ports.

Technical Specifications

Parameters	TX	RX	Units
Frequency Range	41.5 ~42.5	50.4~51.4	GHz
VSWR	≤ 1.3	≤ 1.3	/
Gain	≥ 20		dBi
Axial Ratio	≤ 3		dB
Tx-Rx Isolation	Tx to Rx rejection ≥ 70	Rx to Tx rejection ≥ 70	dB
Polarization	LHCP&RHCP	LHCP&RHCP	/



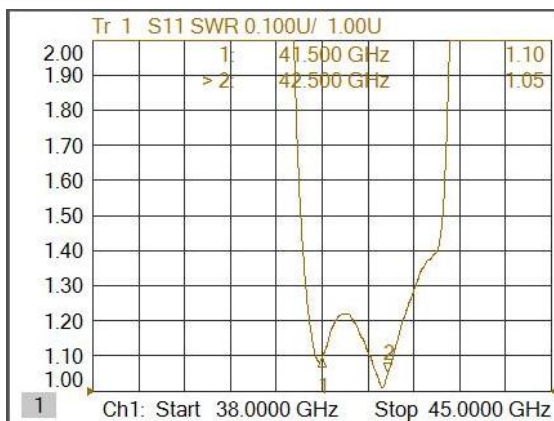
Technical Specifications

Parameters	TX		RX	Units
Element Dimensions	146.7 × 59 × 50.5			mm
Surface Treatment	Silver Plating			
Port Connector	BJ400		BJ500	

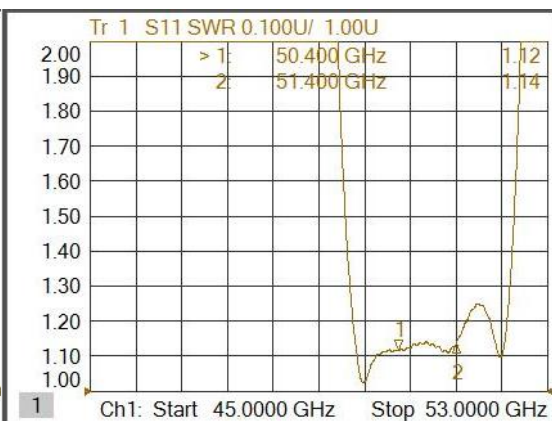
Notes:

Values at 25°C, sea level.

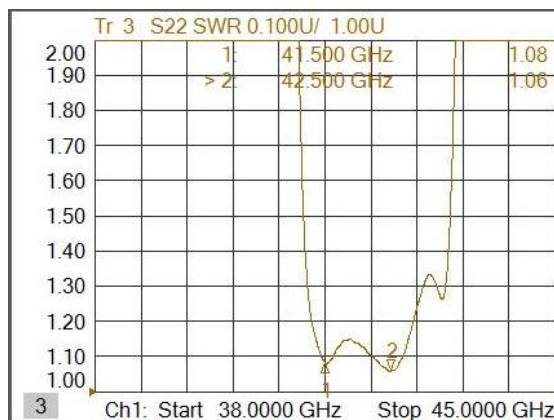
Typical Performances



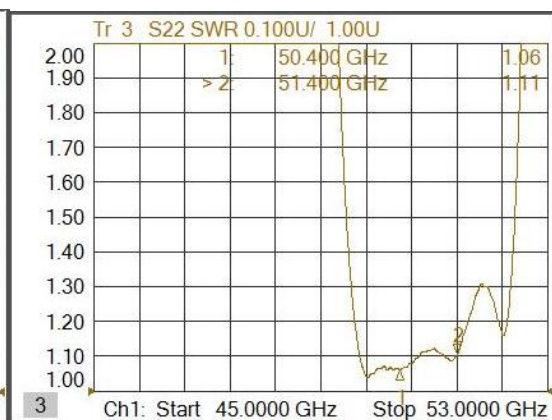
BJ400-L



BJ500-L

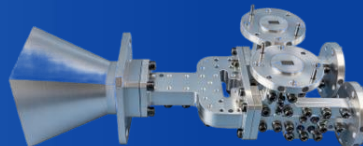


BJ400-R

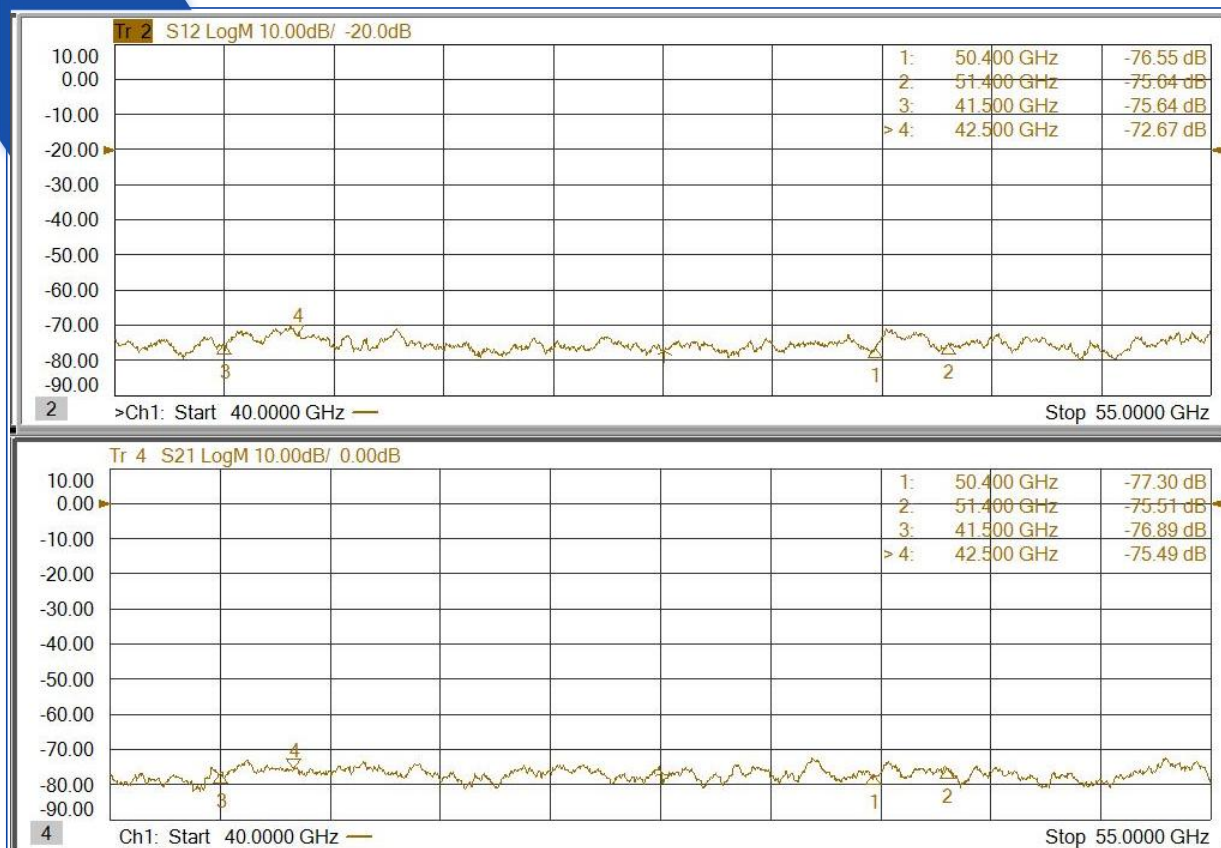


BJ500-R

VSWR Test Curve



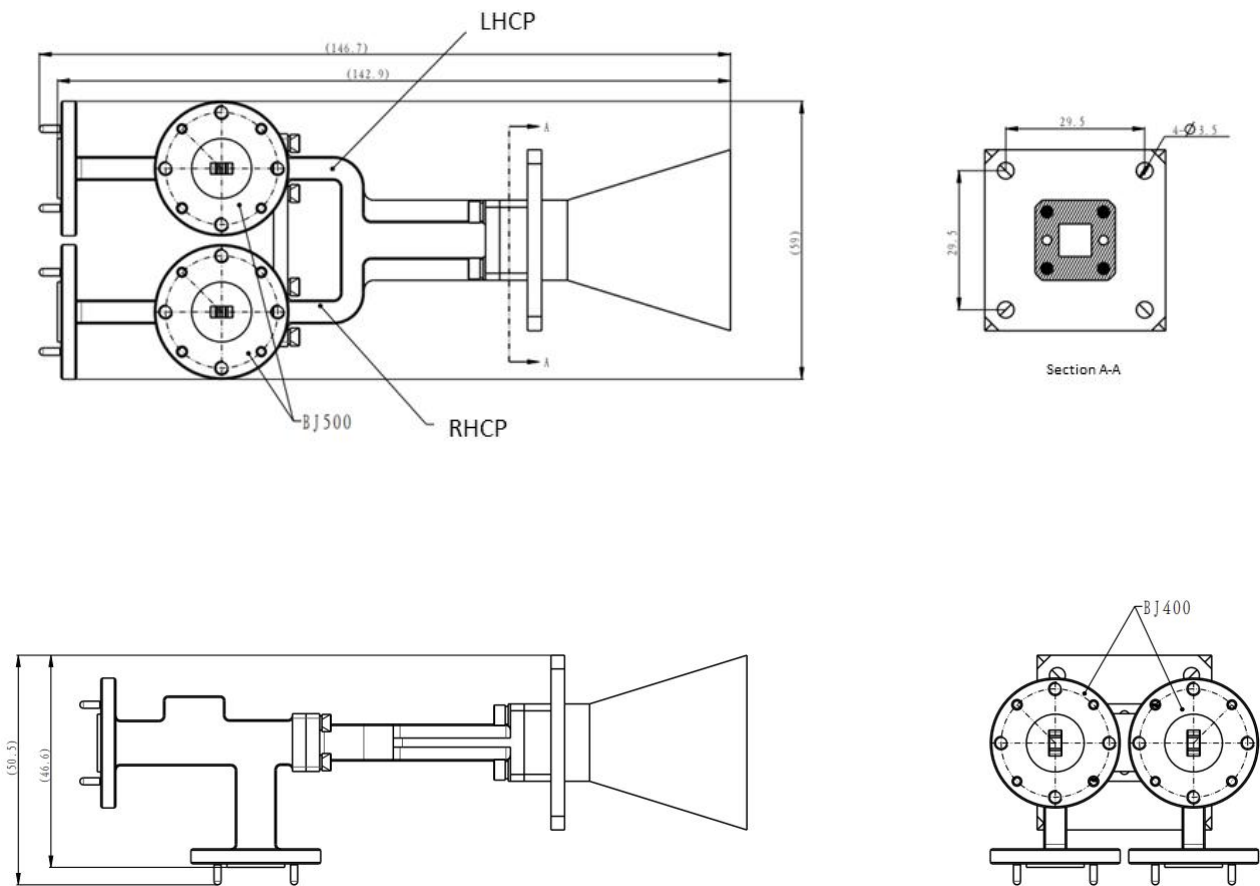
Typical Performances



Isolation between transmit and receive

Performance Test Curve

Outline Drawing:



- NOTES:**
- 1.UNLESS OTHERWISE SPECIFIED ALL DIMENSIONS ARE NOMINAL.
 - 2.ALL SPECIFICATIONS ARE SUBJECT TO CHANGE WITHOUT NOTICE.
 - 3.DIMENSIONS ARE IN mm.

 西安星航通信科技有限公司 XI'AN SATNAVCOM TECHNOLOGY CO., LTD.	PART NAME		
	QV-band Horn Antenna		
	JL2.943.0001	REV	DATE
Tel: +86 135 1916 6509		V1.0	2026.4.9
Website: www.mwglobe.com		SCALE 1:1	 
E-Mail: sales@mwglobe.com			